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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,485	08/01/2003	Paul J. Cahill	7613-90318	3000

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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/632,485	CAHILL, PAUL J.	
	Examiner	Art Unit	
	Irina S. Zemel	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,10-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,10-17, 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 4, 10-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramanian in combination with Segrest, and further in combination with Cardi, either one of Gallucci or Kent ; and Lee all of record.

The rejection of all claims stands as per reasons of record as now applicable to amended claims incorporating limitations of earlier presented dependent claims.

Response to Arguments

Applicant's arguments filed 3-27-2006 have been fully considered but they are not persuasive. In essence, the applicants argue that none of the cited reference discloses or suggests the invention as claimed, i.e., does not disclose each element of the claims. For example, the applicants state that the primary reference, Subramanian, "does not disclose a PET matrix comprising recycled PET, a branching agent, and recycled tires as specified in applicant's amended claim 1. Furthermore, Subramanian does not disclose a final foamed product comprises a docking post, telephone pole, beam, deck, boat slip, pier, stake, shovel, rake, ax handle, hammer, handles, shingle, baseball bat, or cricket bat, as required in applicant's amended claim 1". See page 6 of the applicants' response. Similarly, the applicants state, for example, that "Segrest ,

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Gallucci, Kent, Lee, and Cardi do not disclose a final foamed product comprises a docking post, telephone pole, beam, deck, boat slip, pier, rake, shovel, rake, ax handle, hammer, handles, shingle, baseball bat, or cricket bat, as recited in applicant's amended claim 1." Or that "Cardi does not disclose the use of bis-oxazoline, with recycled PET and recycled tires as set forth in applicant's amended claim 1.", etc.

The examiner quite agree that none of the references alone teaches the claimed invention. However, the combined teachings of the references fairly suggest the claimed invention as per discussion in the previous office action. It is well established by the courts that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The applicants argue that "while Subramanian describes use of recycled PET as suitable for their process, Subramanian's example I uses PET of 0.68 I.V. which would be higher than what would normally be expected from a post consumer PET bottle. Post consumer bottles are typically of lower I.V. as direct resources. One intermediate processing step that is commonly employed in the post consumer PET industry is to solid-state process it to useable PET molecular weight (I.V. such as described in Example 1). This step adds to the cost of using recycled PET and it is an object of applicant's disclosure to minimize costs by the use of a chain branching agent, e.g. PMDA or the bisoxazoline described. The Subramanian process is also a batch molding one which is more costly to operate than the continuous extrusion process that the

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applicant has described of high melt strength.” This arguments is not seen as either persuasive or commensurate in scope with the claimed invention. First of all, the applicants themselves claim I.V. of the recycled PET of as high as 0.9 (and comprising recycled bottles), which is significantly higher than the discloses I.V. of 0.68.

Meanwhile, the applicants do not disclose the PET used in their invention as “uncommon” recycled product. But more importantly, the claims do not limit the recycled PET to be anything more than recycled PET (or recycled PET comprising recycled PET bottled as per claim ()) and that includes any recycled PET regardless whether it was post-treated or manipulated with prior to use in any way or form.

Regarding the Subramanian process being a batch molding one which is more costly to operate than the continuous extrusion process, this argument is not seen as relevant to any claims all of which are drawn to a product and none to a process of making the product.

Regarding the arguments that “Segrest, Gallucci, Kent, Lee, and Cardi do not disclose a final foamed product comprises a docking post, telephone pole, beam, deck, boat slip, pier, rake, shovel, rake, ax handle, hammer, handles, shingle, baseball bat, or cricket bat, as recited in applicant's amended claim 1,” none of those references were relied upon for these teachings. The examiner specifically pointed out which teachings of those references are relevant to the claimed invention and the invention of the primary reference, and used those specific teachings.

Kent reference was relied upon from common knowledge in the art to use compatibilizers in blends of polyolefins and polyesters, not for specific polystyrenes with

specified IV. It is not seen how the IV of a PET is relevant to the general compatibilization techniques used for PET/polyolefin blends. Similarly, it is not seen how the production process of Kent argued by the applicants as distinguishing feature between Kent (alone) and the claimed invention where the relevant teaching relied upon by the examiner is the use of compatibilizers. Arguments regarding higher IV, again, are not understood as contradictory to the claimed IV from 0.4 and 0.9.

The applicants argue that "Cardi does not disclose the use of bis-oxazoline, with recycled PET and recycled tires as set forth in applicant's amended claim 1." The reference does not disclose a lot of other things. However, it clearly discloses suitability of addition of chain extender/hydrolytic agent such as 2,2'-Bis(2-oxazoline) to the compositions based on recycled PET and in the claimed amounts because such addition greatly improves rheological characteristics, and, thus processability of recycled PET. If applicants have reasons to believe that chain extenders will have any different and unexpected results when added to the blend of recycled PET and recycled tires, the applicants should have provided evidence of such unexpected results. So far, it is believed that the only reason for addition of the chain extenders in the claimed compositions is exactly the same taught by the Cardi reference, i.e., improve rheological properties of the PET (as clearly supported by the arguments on page 7 clearly stating with respect to the IV of PET that "it is an object of applicant's disclosure to minimize costs by the use of a chain branching agent, e.g. PMDA or the bisoxazoline described.").

The applicants arguments with respect to Lee and Gallushi are of the same general trend – the applicants discuss what the references do not teach, or portions that were not relied upon by the examiner or the processes that are irrelevant to the claimed invention, rather than discussing the portions and teachings that the examiner relied upon, and arguing against those teachings if the applicants believed that they were improperly relied upon.

Therefore, the applicants arguments are not found convincing and the rejection of all claims stands as per reasons discussed above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

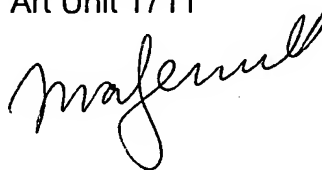
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irina S. Zemel
Primary Examiner
Art Unit 1711



ISZ